

REMARKS

Claims 1, 3-5, 7, 8, 11, 12, 14, 15, 17, 18, 21, 22, 24, 25, 27 and 38 are currently pending in this application. We are pleased to note that the Examiner has found allowable subject matter in Claim 4. In the Office Action, the Examiner has maintained the rejection of Claims 1, 3-5, 7, 8, 11, 12, 14, 15, 17, 18, 21, 22, 24, 25, 27 and 38 under 35 U.S.C. §103(a) as being unpatentable over the Admitted Prior Art (APA) in view of Heikkinen et al. (WO 95/32558) and further in view of Lamoureux et al. (U.S. 6,330,458).

Please add new Claims 39-41. No new matter has been added.

Regarding the rejections of independent Claims 1, 5, 8, 18 and 38 under 35 U.S.C. §103(a), the Examiner alleges that the claims are unpatentable over the APA in view of Heikkinen et al., and further in view of Lamoureux et al. Heikkinen et al. discloses a method for improving connection quality in a cellular radio system, and a base station; and, Lamoureux et al. discloses intelligent antenna sub-sector switching for time slotted systems.

Each of Claims 1, 5, 8, 18 and 38 recites either “wherein the non-transmission period of a last time slot is a non-transmission period intervening between sub-frames” or “wherein the guard period of a last time slot is a guard period intervening between sub-frames.” A switching control signal is generated such that the switching occurs only in a non-transmission period (or guard period) of a last time slot within a sub-frame, the sub-frame includes a plurality of time slots, each time slot includes a transmission period followed by a non-transmission period, the non-transmission period of a last time slot is a non-transmission period intervening between sub-frames. In the claims of the present application, the switching occurs *only* in a non-transmission period of a last time slot within a sub-frame, and the non-transmission period of a last time slot is a non-transmission period intervening between the sub-frames.

First, regarding the position of the non-transmission (or guard) period, the claims of the

present application specifically recite that the non-transmission period of the last time slot intervenes between sub-frames.

Lamoureux specifically discloses that its guard times come before each time slot and thus a guard time associated with its last time slot comes before the last time slot. This is clearly disclosed at col. 5, lines 38-40, and in FIG 4. Further, these sections clearly illustrate that the switching described occurs in the guard period 432 at the beginning of the frame (next frame after frame 401) before the first time slot 406. Any other reading of Lamoureux is improper.

Further, at col. 4, lines 52-55; col. 5, lines 28-39 and 45-49, Lamoureux discloses switching between antennas during the guard time of a time slot occurs conditionally by analyzing received signals prior to the start of a time slot, such as bit error rate, signal amplitude, signal to noise ratio, or signal to noise and interference ratio. Accordingly, Lamoureux is not and cannot be equated with switching *only* in a non-transmission period of a last time slot within a sub-frame, because the analyzing result of Lamoureux does not always satisfy a certain required value for the switching between antenna, e.g. over a plurality of frames interval, and therefore the switching in Lamoureux results in an irregular switching pattern. Rather than switching at the end of a frame as disclosed in the claims of the present application, Lamoureux switches “prior to the start of the time slot” as disclosed at col. 6, lines 31-34.

The Examiner states that Lamoureux discloses that the scanning radio continues to monitor each of antennas 302 and 304 during each of the time slots and selects which antenna should be coupled to a radio during a particular time slot, coupling the antenna to the radio during the guard time of the time slot (col. 5, lines 40-45). The switching of Lamoureux can conditionally occur in any guard time of a time slot, noting again that the guard time precedes its time slot, and thus cannot occur at the end of its frame 401. Further, Lamoureux does not disclose that the switching occurs in a guard period of a last time slot of each sub-frame as recited in Claims 39 and 40 of the present application.

The Examiner goes on to state, "Further, as illustrated in Fig. 4, the sub-frame 401 includes a plurality of time slots, e.g., TS1-TS6, wherein, each time slot includes a guard time, e.g., 422-432...Herein, time slot TS6 is the last time slot in the sub-frame 401 and guard time 432 in the non-transmission period of the last time slot TS6." Lamoureux does not support these conclusions.

First, Lamoureux discloses that guard time 432 is **NOT** in frame 401, but in the next frame. The only guard times in frame 401 are 420-430 as clearly illustrated in FIG. 4. Any other reading of Lamoureux is in error.

Second, since the guard time comes before its time slot, the guard time for time slot 6C 416 is guard time 430, **NOT** guard time 432. Any other reading of Lamoureux is in error.

In the claims of the present application, the switching occurs only at the end of a frame, whereas in Lamoureux, the switching can occur only at the beginning of a frame or other guard times in a frame, but never at the end of a frame since no guard times exist at the end of a frame as clearly illustrated in FIG. 4.

Heikkinen does not cure any of the defects of Lamoureux.

Based on at least the foregoing arguments and amendments, withdrawal of the rejection of Claims 1, 5, 8, 18 and 38 under §103(a) is respectfully requested.

Independent Claims 1, 5, 8, 18, 38 and 40 are believed to be in condition for allowance. Without conceding the patentability per se of dependent Claims 3, 7, 11, 12, 14, 15, 17, 21, 22, 24, 25, 27, 39 and 41, these are likewise believed to be allowable by virtue of their dependence on their respective amended independent claims. Accordingly, reconsideration and withdrawal of the rejections of dependent Claims 3, 7, 11, 12, 14, 15, 17, 21, 22, 24, 25, 27, 39 and 41 is respectfully requested.

Accordingly, all of the claims pending in the Application, namely, Claims 1, 3-5, 7, 8, 11, 12, 14, 15, 17, 18, 21, 22, 24, 25, 27 and 38-41, are believed to be in condition for allowance. Should the Examiner believe that a telephone conference or personal interview would facilitate resolution of any remaining matters, the Examiner may contact Applicants' attorney at the number given below.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Paul J. Farrell", written in a cursive style.

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